10

15

20

## WHAT IS CLAIMED IS:

1. A color cathode ray tube comprising:

a mask frame;

5 a shadow mask fixed to the mask frame;

an inner magnetic shield supported by the mask frame; and

an electron shield provided in the mask frame;

wherein at least a part of the electron shield has a smaller anhysteretic magnetic permeability than the shadow mask, the mask frame and the inner magnetic shield when an applied magnetic field is 800 A/m (10 Oe).

- 2. The color cathode ray tube according to claim 1, wherein the electron shield is formed so as to elongate a front end portion on an electron beam side of the mask frame.
- 3. The color cathode ray tube according to claim 1, wherein the electron shield is formed of a member different from the mask frame so as to protrude beyond a front end portion on an electron beam side of the mask frame.
- 4. The color cathode ray tube according to claim 1, wherein a part of the electron shield has a region having a smaller anhysteretic magnetic permeability than another part when the applied magnetic field is 800 A/m (10 Oe).

25

30

- 5. A color cathode ray tube comprising:
  - a mask frame;
  - a shadow mask fixed to the mask frame;

an inner magnetic shield supported by the mask frame; and

an electron shield provided in the mask frame;

wherein at least a part of the electron shield has a smaller anhysteretic magnetic permeability than the shadow mask, the mask frame and the inner magnetic shield when an applied magnetic field is 800 A/m (10 Oe), and

35 the mask frame comprises a L-shaped member having a L-shaped cross-section and a reinforcing member connected with the L-shaped

10

15

member, and a part of the reinforcing member has a region having a smaller anhysteretic magnetic permeability than another part when the applied magnetic field is 800 A/m (10 Oe).

- 5 6. A color cathode ray tube comprising:
  - a mask frame;
  - a shadow mask fixed to the mask frame;
  - an inner magnetic shield supported by the mask frame; and
  - an electron shield provided in the mask frame;
  - wherein at least a part of the electron shield has a smaller anhysteretic magnetic permeability than the shadow mask, the mask frame and the inner magnetic shield when an applied magnetic field is 800 A/m (10 Oe), and
  - when an electron beam scans a phosphor screen at 100 %, a minimum distance between the electron shield and a path of the electron beam is at least 8 mm.